



Sonoma County Water Agency

Russian River Salmon Monitoring Methods

Underwater Video Monitoring at Mirabel Dam (river mile 22)

Since the year 2000, cameras have recorded adult salmon migrating upstream through fish ladders at the Water Agency's inflatable dam on the Russian River. The dam is too high for fish to jump so they must swim through the ladders. The cameras record continuously 24 hours a day from at least mid-August until high winter river flow requires deflation of the dam (November-January).



Mirabel Dam and Underwater Camera Box



Image of adult Chinook salmon passing in front of video cameras.

Fall Spawning Ground Surveys (river mile 22 to river mile 93)

Spawning surveys have been conducted weekly during November since 2002 along approximately 71 miles of the middle and upper Russian River. The river was accessed by inflatable kayak and the coordinates of salmon nests (called "redds") were recorded using GPS.



Spring Juvenile Fish Traps at Mirabel Dam Site

Downstream migrant juvenile fish are counted and released at traps in the lower river each spring since 2000. The fish are measured, weighed, and a sub-sample is marked to estimate the total number of fish passing the trap site.



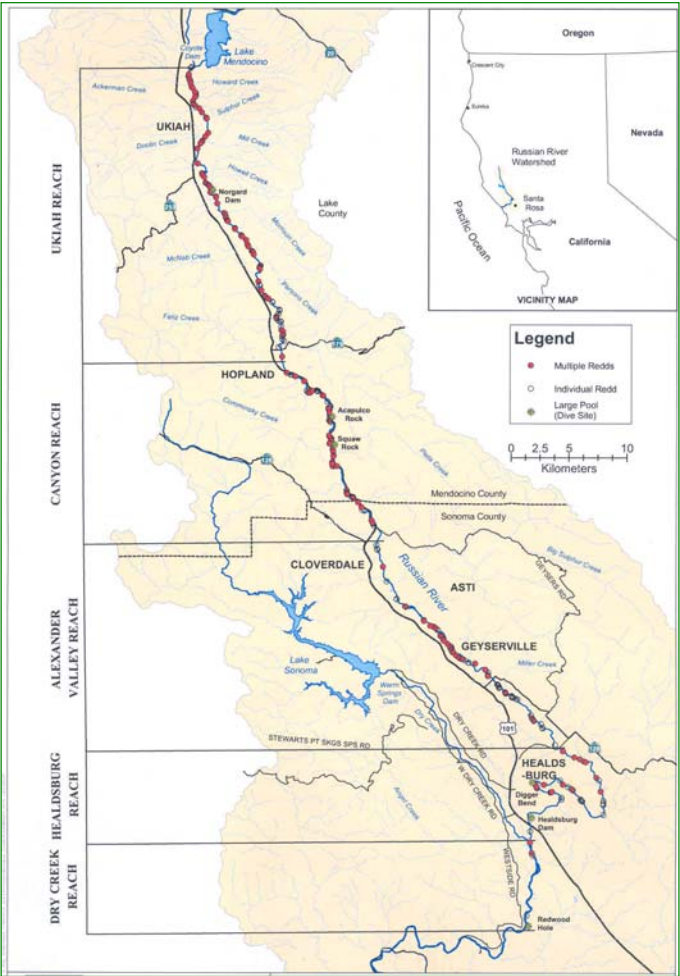
Rotary screw traps are operated below the Inflatable Dam on the Russian River each spring.



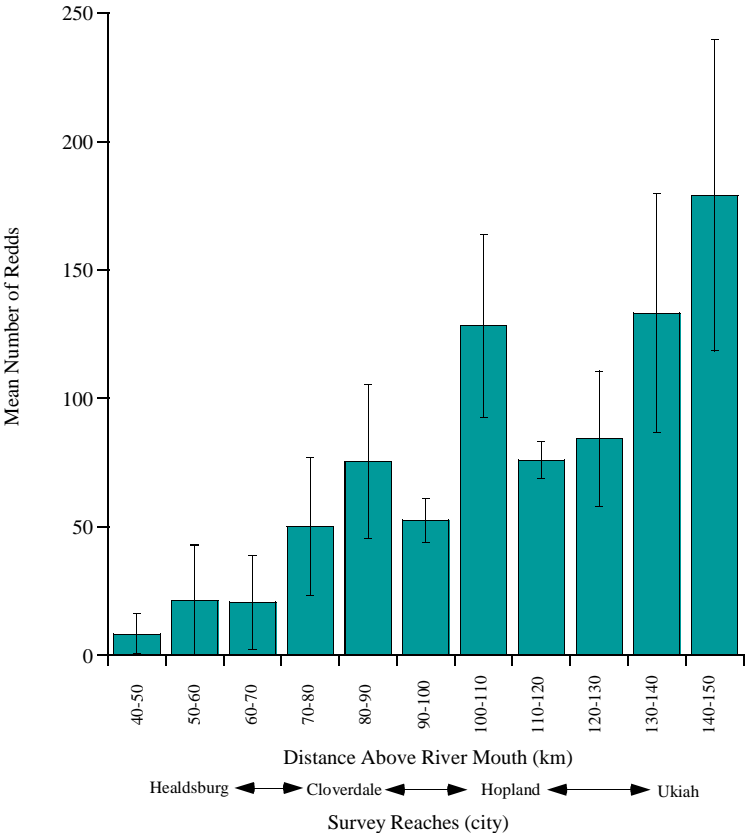
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Russian River Salmon Monitoring Results

Spawning Distribution (river mile 22 to river mile 93)



Average Number of Redds (nests) for Years 2002-2004 from Healdsburg to Ukiah. Counts are Minimum Estimates

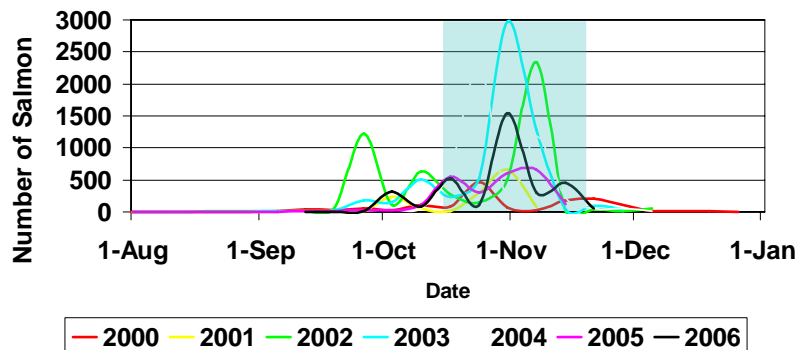




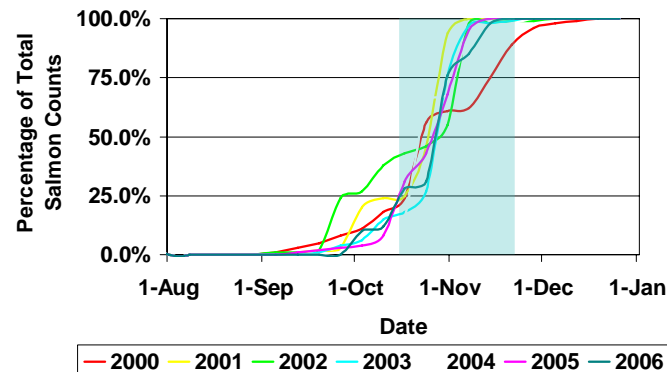
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Russian River Salmon Monitoring Results

Number of Adult Chinook Salmon Counted Each Week at Mirabel Dam During Fall 2000-2006



Cumulative Percentage of Adult Chinook Salmon Counted Each Week at Mirabel Dam During Fall 2000-2006



Water Temperature at Mirabel Dam Site Fall 2000-2006



